

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A process for producing a fluorine-containing synthetic quartz glass article, comprising ~~the steps of~~
 - a) feeding a silica-forming reactant gas, hydrogen gas, oxygen gas, and optionally, a fluorine compound gas from a burner to a reaction zone,
 - b) flame hydrolyzing the silica-forming reactant gas in the reaction zone to form fine particles of silica,
 - c) depositing the silica particles on a rotatable substrate in the reaction zone to form a porous silica matrix,
 - d) heating and vitrifying the porous silica matrix in a fluorine compound gas-containing atmosphere to form a synthetic quartz glass ingot,
 - e) removing the outer periphery of the ingot in an amount of at least 5% of the outer diameter and the opposite ends of the ingot each in an amount of at least 2.5% of the longitudinal length and at least 5% in total, and
 - f) heating and molding the ingot into a synthetic quartz glass article, ~~characterized in that a surface portion of the synthetic quartz glass ingot is removed prior to the heating and molding step.~~
2. (Original) The process of claim 1 wherein the ingot has a diameter defining an outer periphery and a length between longitudinal opposite ends, and the surface portion of the synthetic quartz glass ingot which is removed is up to 50% of the diameter of the ingot at the outer periphery and up to 50% of the length, in total, at the opposite ends.
3. (Withdrawn) A synthetic quartz glass article obtained by the process of claim 1.
4. (Withdrawn) The synthetic quartz glass article of claim 3, having a birefringence of up to 10 nm/cm.
5. (Withdrawn) The synthetic quartz glass article of claim 3, having a refractive index distribution of up to 5×10^{-4} .

6. (Withdrawn) The synthetic quartz glass article of claim 3, having a minimum transmittance of at least 80.0% to light having a wavelength of 157.6 nm.
7. (Withdrawn) The synthetic quartz glass article of claim 3, having a transmittance distribution of up to 1.0% to light having a wavelength of 157.6 nm.
8. (Withdrawn) The synthetic quartz glass article of claim 3, having a minimum transmittance of at least 90.0% to light having a wavelength of 193.4 nm.
9. (Withdrawn) The synthetic quartz glass article of claim 3, having a transmittance distribution of up to 1.0% to light having a wavelength of 193.4 nm.
10. (New) A process of claim 1, wherein the fluorine compound is SiF₄, CHF₃, or CF₄.
11. (New) A process of claim 1, wherein removing the outer periphery of the ingot and the opposite ends of the ingot each is accomplished by grinding and/or cutting.
12. (New) A process of claim 2, wherein the surface portion of the synthetic quartz glass ingot which is removed is up to 30% of the diameter of the ingot at the outer periphery.
13. (New) A process of claim 2, wherein the surface portion of the synthetic quartz glass ingot which is removed is up to 10% of the diameter of the ingot at the outer periphery.
14. (New) A process of claim 2, wherein the surface portion of the synthetic quartz glass ingot which is removed is up to 30% of the length, in total, at the opposite ends.
15. (New) A process of claim 2, wherein the surface portion of the synthetic quartz glass ingot which is removed is up to 10% of the length, in total, at the opposite ends.